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U. S. Department of Agriculture - Forest Service
CENTRAL STATES FOREST EXPERIMENT STATION
In Cooperation With
Ohio Agricultural Experiment Station
Department of Forestry

Technical Note 45.

VOLUME TABLE ^{1/}

November 15, 1941

for
AMERICAN BEECH
(*Fagus grandifolia*)

Franklin, Stark and Holmes Counties, Ohio

Merchantable Stem to a Variable Top Diameter INTERNATIONAL Rule ($\frac{1}{4}$ " Kerf)

Diameter breast high outside bark (inches)	Gross volume of stem in 12.3-foot logs to merchantable height					Top d.i.b. at merchantable limit	Basis in trees
	1	2	3	4	5		
	log	logs	logs	logs	logs		
	Bd.ft.	Bd.ft.	Bd.ft.	Bd.ft.	Bd.ft.	Inches	Number
8	17	29	39			6.6	2
9	23	38	52			6.9	2
10	30	50	67	84		7.3	11
11	37	63	85	106		7.7	5
12	46	77	105	131		8.2	15
13	56	94	128	159		8.7	9
14	67	113	153	190		9.2	7
15	79	134	182	225		9.8	7
16	93	157	212	264		10.4	5
17	108	182	246	306		11.1	5
18	124	209	283	352	416	11.8	13
19	142	238	324	402	474	12.5	13
20	160	270	366	455	538	13.2	13
21		304	413	513	605	14.0	3
22		341	462	574	679	14.7	5
23		380	515	640	757	15.4	7
24		422	572	710	840	16.2	8
25			632	785	929	17.0	2
26			695	863	1021	17.8	7
27			762	946	1119	18.6	5
28			834	1035	1225	19.4	3
29			908	1127	1334	20.2	3
30			986	1225	1449	21.0	3
31			1069	1327	1570	21.9	-
32			1156	1435	1698	22.8	2
33			1245	1545	1828	23.7	-
34			1340	1663	1968	24.6	2
35				1786		25.5	-
36				1914		26.4	-
37				2046		27.4	-
38				2183		28.3	-
39				2328		29.3	1

Basis in trees-- number	8	33	56	52	9	--	158
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1/ Trees climbed and measured by personnel of Work Projects Administration
Official Project 65-1-42-166 - "The Ohio Woodland Survey." Measurements
taken at 12-foot log lengths above a 1.0-foot stump height. Scaled as

12-foot logs, and additional shorter top logs; top sections less than 8 feet in length scaled as fractions of an 8-foot log. Table prepared in 1941 by the equation method. Coefficient of multiple correlation (R) = .990. The band of the standard error of estimate is 86.2 to 115.8 percent. Block shows limits of basic data.

The total estimated gross volume of single beech trees or stands should be corrected for cull (including defect, sweep, crook, shake, etc.) by a percentage reduction. This percentage should be determined locally through observing the cull elements and through local experience of millmen as regards losses from rot, shake, etc., in utilizing this species.

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